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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/655,576      | 09/06/2000  | Lambert Haner        | 28870               | 9923             |

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EXAMINER

JONES, JUDSON

ART UNIT PAPER NUMBER

2834

DATE MAILED: 12/04/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/655,576

Applicant(s)

HANER, LAMBERT

Examiner

Judson H. Jones

Art Unit

2834

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10 is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the magnetic at right angles to each other as recited in claim 6 and the magnetic field vectors passing through the rotor in chordal like zones as recited in claim 8 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. In the drawing description on page 4 of the specification mention is made of a FIG. 15 showing field vectors. There is no FIG. 15 in the drawings submitted to the Patent Office.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-3, 9 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgbacher 4,370,580 in view of Burgbacher 3,775,626. Burgbacher '580 discloses an electric motor with a rotor having an electrically continuous conductive loop as described in column 1 lines 41-45, a stator as shown in figure 2 but does not disclose an electric circuit for energizing and de-energizing the field windings. However, Burgbacher '626 discloses an electric circuit in column 4 lines 1-8. Since the '580 and '626 devices are both from the same field of endeavor, it would have been obvious for

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one of ordinary skill in the art to have utilized an electric circuit for energizing windings in order to make the rotor turn.

3. In regard to claim 2, see '580 figure 2.
4. In regard to claim 3, see '626 column 4 lines 1-8.
5. Claims 4-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Burgbacher '580 as modified by Burgbacher '626 in view of Bedford and Williams. '560 as modified by '580 discloses the AC motor but does not disclose powering the motor by square waves. However, Bedford teaches powering a reluctance motor by square wave voltage in column 1 lines 4-9 and Williams teaches powering a squirrel cage motor by square wave voltage in column 1 lines 7-23. Since Bedford, Williams and '580 as modified by '626 are all from the same field of endeavor, it would have been obvious for one of ordinary skill in the art to have used square wave voltage to power the motor of '580 as modified by '626.
6. In regard to claim 5, see Williams column 1 lines 7-23.
7. In regard to claim 6, see Bedford figure 1a, which shows a four pole motor. Such a motor will inherently produce magnetic field vectors at right angles for coils 16a and 17a.
8. In regard to claim 7, see Williams column 1 lines 7-23. The supply frequency  $f$  controls the position of the magnetic field vector to regulate speed and torque.
9. In regard to claim 8, see Bedford figure 2a, which shows a six pole motor.

**Allowable Subject Matter**

10. Claim 10 is allowed.

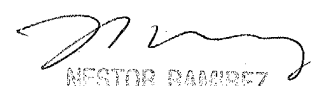
11. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not disclose or teach a motor having a control circuit where the power signal varies in amplitude in a cyclic manner corresponding to the speed of rotation of the motor.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Judson H. Jones whose telephone number is (703) 308-0115. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor R. Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3432 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JHJ   
November 13, 2001

  
NESTOR RAMIREZ  
SUPERVISORY PATENT EXAMINER  
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